

The “African” genus *Argiagrion* is a Brazilian *Leptagrion* species and the “Philippine” *Moroagrion* a European *Pyrrosoma* (Odonata: Coenagrionidae)

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Argiagrion leoninum, known only from the female holotype alleged to be West African, is shown to be a junior synonym of the Brazilian species *Leptagrion macrurum*. *Moroagrion danielli*, known only from the male holotype thought to be from the Philippines, is a junior synonym of the European *Pyrrosoma nymphula*. *Argiagrion* and *Moroagrion* were both monotypic genera and become junior synonyms of *Leptagrion* and *Pyrrosoma* respectively.

Keywords: Odonata; damselfly; Zygoptera; Africa, Philippines

Introduction

In this paper the statuses of the poorly known monotypic genera *Argiagrion* and *Moroagrion* are discussed and both are shown to be synonyms of species from completely different biogeographic regions. Mislabelling or misinterpretation of the label of the holotypes obscured their true identity for 137 and 74 years respectively. In a similar recent case, the genus *Skiallagma* Förster, 1906 presumed to be Brazilian was shown to belong to the Oriental genus *Xiphiagrion* Selys, 1876 (Garrison, 2012).

Systematic part

Leptagrion macrurum (Burmeister, 1839)

Argiagrion leoninum Selys, 1876 syn. nov.

Telebasis leonina Selys, in litt. (nomen nudum)

The genus *Argiagrion* and its only species *A. leoninum* were described by Selys (1876) from Sierra Leone. The female holotype held at the Natural History Museum (London, UK) is unlike any damselfly known from the African continent (Dijkstra, 2003) by its robust stature and distinctive markings: entirely blue face, dark dorsum of head without postocular spots but with a broad

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blue band between eyes across vertex, brown synthorax with broad blue stripes and blue spot on mesepimeron near wing base, largely black S2 with apical pale ring, largely black S3–6 with subapical pale rings, and S7–10 black with pale dorsum of S8 (see Supplementary Material, S1 – Supplementary material is available via the article webpage). In these features it agrees with a female of *Leptagrion macrurum* from Brazil in the same collection. Females can be assigned to the genus *Leptagrion* by the following combination of characters: frons angulate; anterior portion of mesepisterna lacking tubercles or horns; cubital cross-veins (“anal crossing”) joining anal vein at wing margin; vein descending from tip of quadrilateral cell not running straight to wing margin; S8 lacking vulvar spine, posterodorsal margin of S9 with denticles, dorsum of S10 not cleft, and ovipositor at most reaching tip of cerci. Uniquely, the ovipositor valves of some species have teeth in irregular groups, not in a single row (Garrison, von Ellenrieder, & Louton, 2010; R. Garrison, personal communication, 2013). The holotype agrees in all details, although the frons is ridged weakly and, while the valves appear to have complex rows of denticles, these are covered with dirt. The shape of the prothorax and pterostigma, as well as the colour of S8, fit the *L. macrurum* female as diagnosed by Costa and Garrison (2001) and also agree with the aforementioned female. The synonymous genera *Leptagrion* and *Argiagrion* were described in the same publication and as first revisers we select *Leptagrion* as the valid name.

Pyrrhosoma nymphula (Sulzer, 1776)

Moroagrion danielli Needham & Gyger, 1939 syn. nov.

The genus *Moroagrion* and its sole species *M. danielli* were described by Needham & Gyger (1939) in their treatment of Philippine Zygoptera. The description was based on “one male from Guara, P.I., 10 VII '03”, where “P.I.” was presumably taken to stand for the Philippine Islands. The authors provided a detailed description and illustrations of the wings and appendages in dorsal and lateral view. We received photographs of the fragmented holotype (see Supplementary Material, S2) held at the Cornell University Insect Collection (Ithaca, USA). The illustrated cerci bear a long posteriorly directed ventral process at their base. Such a cercal spur is characteristic of some genera of Coenagrionidae (De Marmels, 2007). Although the illustrated paraproct perhaps appears slightly too long, the figure of the appendages and the toothed border of S10 fit the Western Palaearctic *Pyrrhosoma nymphula* well. Numerous details in the description support the similarity further: stout body; black head covered with stiff hairs and bold yellow facial bands, but without postocular spots; black thorax with orange antehumeral stripe broken near wing base and largely yellow metepimeron (erroneously called metepisternum by Needham & Gyger, 1939) invaded anteriorly by black; black legs; largely orange abdomen with broad dorsal black on S7–9 absent apically. While *P. nymphula* is vividly red in life, this discrepancy is probably due to discoloration. The description leaves no doubt that *Moroagrion* is a junior synonym of *Pyrrhosoma*. Three further species of that genus are known, but the Chinese species *P. latiloba* Yu, Yang, and Bu, 2008 and *P. tinctipenne* (McLachlan, 1894) have more extensively yellow synthoracic sides not interrupted by a black metapleural stripe (Yu et al., 2008). The south-east European endemic *P. elisabethae* Schmidt, 1948 has the cercal spur less than half as long as the main axis of the cercus (Kalkman & Lopau, 2006). We believe the locality “Guara, P.I.” may refer to the Sierra de Guara in north-eastern Spain, a region from which *P. nymphula* is known (Dijkstra & Lewington, 2006). The initials P and I could refer to the Pyrenees and Iberia.

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